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ABSTRACT

This collection of abstracts is part of a continuing series providing information on recent doctoral dissertations. The 19 titles deal with a variety of topics, including the following: (1) factual, elaborative, and inferential levels of text processing; (2) the effect of explicitly and implicitly presented rhetorical functions on the comprehension of scientific discourse; (3) reader, writer, and text context variables as influences on text comprehensibility; (4) the relationship of the amount and structure of children's prior knowledge to reading comprehension of expository prose; (5) defining reading comprehension; (6) the role of cognitive development in the acquisition of reading skills; (7) quality of prose recall as a function of cognitive style and test situation; (8) metacognitive awareness and the reading comprehension of fifth grade students; (9) recall of connected discourses as a function of emotion; (10) physiological rhythms and story retention of high and low imagers in second grade; (11) the effect on comprehension of increasing the single-word recoding speed of poor readers; (12) the assignment of suprasegmental features during oral reading; (13) the relation between surface processing variables and comprehension product measures in oral and silent reading; (14) the influence of main idea task and topic sentences on recall; (15) reading proficiency and modes of accessing the internal lexicon; and (16) the use of phonetic and semantic memory codes in good and poor readers. (HTH)

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Reading, Comprehension, and Memory Processes:

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Abstracts of the following dissertations are included in this collection:

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A DEVELOPMENTAL INVESTIGATION OF THE USE OF PHONETIC AND SEMANTIC MEMORY CODES IN GOOD AND POOR READERS

LEVELS OF TEXT PROCESSING: FACTUAL ELABORATIVE, AND INFERENTIAL

Order No. DA8409009

AHLUM, MARY ELIZABETH, PH.D. *The Pennsylvania State University*, 1983. 132pp. Adviser: Dr. Francis J. Di Vesta

The levels of processing literature suggests that memory for prose is a function of the type of encoding process engaged in by the reader during the learning episode. This research examined, via two experiments, the possibility that readers would differentially remember a passage of text as a result of differing levels of processing during reading. Specifically, it was hypothesized that as the level of reader:text interaction increased readers would evidence better recall and recognition of the text. Experiment 1 varied the levels of textual processing indirectly through task instructions. In Experiment 2, a direct manipulation of processing levels was examined by investigating the effects of different levels of inserted questions (factual, elaborative, inferential) on the unitization of text. The free recall results from Experiment 1 weakly supported the hypothesis, while the hypothesis was not supported by the recognition data. The results from Experiment 2 indicated that type of question answered during the encoding of the passage affected the quantity and quality of what was recalled but did not affect recognition for the material. Factual and inferential questions led to the same levels of recall and both of these groups recalled more premise ideas, on the average, than the elaborative question group.

THE EFFECT OF EXPLICITLY AND IMPLICITLY PRESENTED RHETORICAL FUNCTIONS ON THE COMPREHENSION OF SCIENTIFIC DISCOURSE: A MULTITRAIT-MULTIMETHOD CONSTRUCT VALIDATION STUDY OF EST READING COMPREHENSIONS

Order No. DA8409891

CHAVANACHAT, PONSAWAN, PH.D. *University of Illinois at Urbana-Champaign*, 1983. 142pp.

The purpose of this study was to examine whether the ability to comprehend an explicitly presented rhetorical function and the ability to comprehend an implicitly presented rhetorical function in scientific discourse constituted two distinct traits. This study also examined the relative effect of these two traits and several testing methods on performance of students on reading comprehension tests.

A multitrait-multimethod design with two traits and four testing methods was used. Testing methods employed comprised two test formats, cloze test and multiple-choice test, and two rhetorical functions, argumentation and classification. All tests were given to 114 non-native students of English at the University of Illinois at Urbana-Champaign. In addition to examining the patterns of correlations among measures in the multitrait-multimethod matrix, this study used confirmatory factor analysis to examine the factor structure underlying the observed measures and to test several hypothesized primary factor models.

A comparison of the relative magnitudes of the correlations in the multitrait-multimethod matrix indicated a strong testing method effect on all of the measures, as well as low discriminant validity. The confirmatory factors analysis indicated that the model of best fit included two distinct but highly correlated traits. In interpreting the relative importance of the trait, test format, and rhetorical function factor loadings in this model, information from a questionnaire on subjects' familiarity with the content of the passages was also considered. There was a significant correlation between the levels of familiarity and the performance on the tests. Factor loadings indicated that the less familiar passage provided better measures of the traits than did the familiar passages. In addition, there were strong interactions among the familiarity with the content, the test formats, and the rhetorical functions of a passage. The results of this study suggest that construct validation can provide important information for test users. This information may not only prevent the careless misuse of tests, but also provide a better understanding of the nature of the traits underlying the tests and the characteristics of testing methods used.

READER, WRITER, AND TEST CONTEXT VARIABLES AS INFLUENCES ON THE COMPREHENSIBILITY OF TEXT

Order No. DA8414330

CLARK, CURTIS L., PH.D. *State University of New York at Albany*, 1984. 193pp.

In this study, the comprehensibility of written text was examined from a symbolic-interactionist perspective. Readers were selected from populations of eighth and tenth grade students. In the course of comprehension, the reader interacted with the writer's text. Both reader variables and qualities of the writer's text affected comprehension performance. Comprehension was further influenced according to the means by which it was assessed. Results indicated that previous evidence found in the literature for the differential comprehension of expositions and narratives was owing to (1) differences in the reader's extant topic-relevant knowledge, (2) the means by which the comprehension was measured, (3) basic text characteristics (content structure, concept and connectives density, and traditional readability), and (4) sensitivity to the writer's general rhetorical structure. When controls for extant knowledge, comprehension measure and text characteristics were in place, no differences for texts having expository and narrative tendencies emerged. Thorough free recall was most related to well developed extant knowledge, and was to some extent related to an awareness of general rhetorical structure. However, underdeveloped topic knowledge still supported average or better performance on a multiple choice measure. Verbal reasoning ability significantly compensated for lack of extant knowledge, but the instructional utility of such a circumstance was questionable. No effect for the surface measure of coherence was found. Implications for the assessment of reading failures and their remediation is discussed in terms of the constructs of "practice" and "wholistic modelling."

THE RELATIONSHIP OF THE AMOUNT AND STRUCTURE OF CHILDREN'S PRIOR KNOWLEDGE TO READING COMPREHENSION OF EXPOSITORY PROSE

Order No. DA8414610

DOMARACKI, JANE, ED.D. *State University of New York at Albany*, 1984. 179pp.

This study investigated the relationship between the amount and structure of children's text-relevant prior knowledge and reading comprehension of expository passages of varying difficulty.

Ninety sixth and seventh graders completed a vocabulary task, which measured amount of prior knowledge about gravitation. Knowledge structure was assessed via multidimensional scaling of concept relatedness judgments. Subjects' structural representations were compared with those of physics experts to determine the quality of each subject's knowledge structure. Two days after completing these tasks, subjects read one of three reading passages about universal gravitation which differed in readability level but which included the same key concepts and had the same macrostructure. Subjects then wrote answers to textually explicit, textually implicit and scriptally implicit comprehension questions and completed the concept relatedness task again, which provided an indication of post-reading knowledge structure.

Quality of children's prior knowledge structure explained significant increments of total reading comprehension variance and textually implicit comprehension variance above that which could be accounted for by intelligence or reading ability. Because amount of prior knowledge tended to be more redundant with general reading and intellectual ability than were structural measures, it was a less valuable predictor of additional variance.

In addition to possessing incremental validity in predicting comprehension performance, measures of knowledge structure were also useful indices of changes in knowledge organization which occurred following reading. After reading, good comprehenders were found to have altered their conceptual organization in the direction of the expert knowledge structure to a greater extent than poor comprehenders.

The lack of significant differences in comprehension scores across passage conditions suggested that traditional readability did not adequately describe the processing difficulty of the passages

employed in the study.

The differential predictive power of amount and structure measures are interpreted as supporting a faceted definition of prior knowledge. Results also support an interactive model of reading in which textual difficulty is viewed as a function of the text--reader interaction and comprehension as an interactive process rather than as a skill to be mastered. Findings are related to previous research and implications for assessment, instruction and future study are addressed.

DEFINING READING COMPREHENSION

Order No. DA8412386

FAIST, ROBERT THOMAS, PH.D. *University of Washington*, 1984. 200pp. Chairperson: Professor Sam Sebesta

Existing definitions of the concept "reading comprehension are conflicting, vague and ambiguous. The goals of this study are to: (1) identify similarities and differences among existing definitions, (2) establish conceptual standards for defining comprehension in an educational context, and (3) critically evaluate definitions and demonstrate their educational implications.

The first stage of the study assembles exemplar definitions of comprehension created by reading methodologists. These are classified by distinctive features, into four groups.

The second stage of the study is a conceptual analysis intended to formulate a set of statements which must be true to say that someone reads with comprehension. Among the conclusions of the analysis are that a text, to be read with comprehension, must: (1) be orthographic, (2) consist of at least one "locutionary act," and (3) contain elements which are semantically compatible. To read with comprehension, the reader must (1) recognize the locutionary content of the text and (2) make sense of the text in relation to experience and purposes for reading. Additionally, the analysis affirms the primacy of inference-making to reading comprehension and explores the relative importance of drawing conclusions by the reader.

The third stage of the study is a critical review of existing definitions in light of the foregoing conceptual analysis. Tests of specificity, generality, clarity, and objectivity are used to examine sampled definitions. Several of the definitions are shown to be essentially programmatic rather than descriptive in character. The definitions sampled evince educational implications of various kinds.

Conclusions include the identification of fundamental conceptual problems reflected in educators' attempts to define comprehension. Among these problems are confusing usage of the terms *definition* and *model*, an obfuscation of differences between competence and performance, and simultaneous description of comprehension as "ability," "process," and "product." This study adopts the view that comprehension is most productively conceptualized as a quality descriptive of some reading acts.

THE ROLE OF COGNITIVE DEVELOPMENT IN THE ACQUISITION OF READING SKILLS

FIELD, TANYA HELEN, PH.D. *University of Southern California*, 1982. Chairperson: Professor Grayce Ransom

Purpose. This study was concerned with investigating the use of the Goodenough-Harris Quality Scale as a measure of Piagetian developmental age. It was also concerned with the positive correlation between acquisition of 340 reading skills and Piagetian developmental ages. Finally, it sought to determine a general ordering of the reading skills according to the developmental age at which they were first mastered.

Methodology. Descriptive, correlational and developmental techniques were selected for this study. The Goodenough-Harris Drawing Test, Piagetian Attainment Task, an Inventory of Piaget's Developmental Tasks and the Developmental Reading Program's skills tests were criterion instruments used.

Findings and Conclusions. Data gathered from the Goodenough-Harris Drawing Test and the Piagetian instruments supported the conclusion that the Goodenough-Harris Drawing Test could be used as a Piagetian instrument (henceforth called the Piagetian Quality Scale). Data gathered also supported the conclusion that reading skills acquisition is related to Piagetian developmental ages and that reading skills can be grouped and ordered according to these ages.

Recommendations. Classroom teachers and researchers can use this Piagetian Quality Scale to more easily identify the Piagetian developmental age of their students. School districts and program developers should consider developmental age of students in their design of reading programs. Researchers may implicate this study in other instructional areas K-8.

(Copies available exclusively from Micrographics Department, Doheny Library, USC, Los Angeles, CA 90089.)

QUALITY OF PROSE RECALL AS A FUNCTION OF COGNITIVE STYLE AND TEST SITUATION

Order No. DA8418074

GHOMI, CAROL, ED.D. *University of Houston*, 1984. 63pp.

An experiment was conducted to investigate the relationship between cognitive style and prose processing under different test situations. Recent studies with adults suggest that field-dependent (FD) individuals tend to rely more on the text for understanding, while field-independent (FI) individuals rely more on prior knowledge. In research with children, those who had difficulty overcoming an embedding context in teacher-student conversations (similar to FD subjects) were more likely to reproduce text in a literal sense. On the other hand, children who had no difficulty overcoming a conversational context (similar to FI subjects) were more likely to reconstruct text using inference and world knowledge.

Moreover, research with children suggests that their perception of the degree of risk involved in the test situation influences quality of recall. That is, recall is more referential (i.e., closer to the input text) in formal than in informal test situations.

In the present experiment, 194 college students were randomly assigned to two different testing situations. Instructions for the informal test situation requested subject to read a short passage which was to be used later in another experiment and thanked them for their help. Instructions for the formal test situation informed subjects that they were competing with students statewide to determine which institutions would introduce a Literacy Test for graduating seniors. All subjects read the same 360 word passage, were asked to recall the passage in as much detail as possible and were asked questions about the passage. The Group Embedded Figures Test (GEFT) was used to classify subjects as field-independent or field-dependent.

When subjects' recall protocols were examined to determine the proportions of units reflecting either referential or elaborative recall, results were not as expected. There was no difference in these recall categories between FI and FD subjects. Furthermore, the recall patterns were not significantly different between the formal and informal test situations.

These results do not agree with those of previous studies. In the present experiment, the text material and the procedures for establishing the formal and informal test situations may have been factors which led to the contradictory results. There have been few studies relating the quality of prose recall to cognitive style, and further research is clearly warranted.

AN INVESTIGATION OF METACOGNITIVE AWARENESS AND THE READING COMPREHENSION OF FIFTH GRADE STUDENTS

Order No. DA8418835

GOLDSTEIN, JUDITH SHELLEY, ED.D. *Hofstra University*, 1984. 269pp.

The main purpose of this investigation was to investigate comprehension and the strategies the students employed when there were obstacles to understanding.

The subjects were thirty fifth grade students drawn from all the fifth grade classes in the John M. Marshall Elementary School in East Hampton, New York. There were two groups, one average group composed of twenty randomly selected students, whose scores fell within the 40th-74th percentile range of the reading comprehension subtest of the Comprehensive Test of Basic Skills (CTBS), Form U,

and a superior group composed of ten students, selected at random, whose reading scores fell in the top quartile.

The investigator individually administered to all selected subjects a narrative and an expository passage consisting of two selections combined into a cohesive passage by alternating sentences in a sequential order.

Each child read one of two versions of the narrative, and one of two versions of the expository.

Percentages revealed that: (1) superior readers recalled more items than average readers, (2) both groups evidenced a higher percentage of recall from the exposition, and (3) the trend for a higher percentage of synthesis was in the direction of the average readers.

Furthermore, both groups: (1) constantly searched for meaning, (2) integrated to make something meaningful of both stories, (3) combined the stories, (4) synthesized the two stories, and (5) created a new story through use of "interpretive additions."

The high degree of synthesized responses suggests that too little cognitive monitoring was taking place, since the readers used details from both selections to create something meaningful rather than using conscious metacognitive strategies to integrate the ideas of the passage. Consequently, a major conclusion drawn from this investigation was that competant readers do not always monitor their comprehension effectively as evidenced by the failure of many of the superior readers to notice deliberately introduced confusions in a narration and an exposition. They thought they understood, when in fact they did not.

RECALL OF CONNECTED DISCOURSES AS A FUNCTION OF EMOTION

Order No. DA8402831

HAMZAH, MOHAMAD DAUD, PH.D. *The University of Wisconsin - Madison*, 1984. 318pp. Supervisor: Professor Philip Lambert

This study was intended to investigate the processes of schema activation and use during reading. The Emotive Scenario Hypothesis was advanced to propose that the schematic information in a discourse, in increasing specificity, contains the discourse schema, the episodes, the scenarios, and the molecular schemas. The grammatical structure combines aspects of the molecular schemas into idea units. Certain idea units, termed scenario-pointers, delineate the scenarios. Readers activate the scenarios by initially instantiating emotive information associated with the scenario-pointers. This, in turn, activates the episodes and the discourse schema for encoding information, resulting in enhanced retention. Specifically, this study was intended to ascertain whether emotive instantiations of the scenarios enhance retention of the discourse.

Eighty-eight undergraduates from the Universiti Sains Malaysia served as the subjects. They were placed in four groups. Each group was instructed to read four passages. The texts for control group I contained no adjunct idea units. Those for control group II, and experimental groups I and II, contained adjunct idea units connoting neutral emotions, happiness, and sadness, respectively. Recall scores were collected in free recall sessions at the immediate and delayed retention intervals. A within-subject experimental design was employed.

The results within both retention intervals showed that the control and experimental groups I attained similar recall scores. Their scores were higher than those of control and experimental groups II ($p < .05$), which were also similar to one another. Discourses 1 and 4, on the one hand, and discourses 2 and 3, on the other, produced similar effects. Discourse 1 produced lower scores than discourse 2 ($p < .05$). There were no interactive effects of adjunct idea units and the discourses. The retention intervals produced significant effects ($p < .05$).

It was concluded that the Emotive Scenario Hypothesis was partially confirmed. That is, readers generated emotively pleasant instantiations of the scenarios while reading different passages. The resulting enhancement of retention persisted across retention intervals. Unemotive and umpleasant instantiations masked emotively pleasant instantiations, resulting in poor recall.

STORYREADING IN SECOND GRADE: EXPLORING PHYSIOLOGICAL RHYTHMS AND RETENTION OF HIGH AND LOW IMAGERS IN THREE CLASSROOM SETTINGS

Order No. DA8412460

KANE, ELAINE MONTGOMERY, ED.D. *Brigham Young University*, 1984. 188pp. Chairman: Rex A. Wadham

The purpose of the study was to observe evidence of physiological rhythms, nonverbal behavior, and retention in second grade students who had previously been identified as being either high or low imagers. The focus of the study was to identify and compare these elements in a classroom storyreading activity with mental imagery ability, through nonprompted recall, as a function of story retention. There were three levels of treatment in the study; (1) a live storyreading to two children, (2) an audio-visual tape presentation of a live reading to two children, and (3) an audio-only presentation of the original audio-visual soundtrack to two children.

In the study it was concluded that, in most cases, students categorized as high imagers exhibited superior capacity for story retention and recall than did students identified as low imagers. It was further concluded that for this study, the story length of the storybook was too brief to allow time for marked physiological responses to manifest themselves for measurement.

THE EFFECT ON COMPREHENSION OF INCREASING THE SINGLE-WORD RECODING SPEED OF POOR READERS

Order No. DA8414622

LYON, KATHLEEN ROSE, ED.D. *State University of New York at Albany*, 1984. 146pp.

Combining theories which state that rapid word recognition is necessary for comprehension with theories which state that reading comprehension can be increased only up to the current level of listening comprehension suggested that poor readers with greater listening- than reading-comprehension ability would demonstrate significantly better reading comprehension when trained in rapid accurate single-word recoding than when trained only in accurate single-word recoding, but poor readers with commensurate listening- and reading-comprehension ability would not.

Sixteen third graders were identified who were performing at least one year below grade level in silent reading on the Diagnostic Reading Scales (DRS) and were moderately accurate (70% accuracy or better), but slow (Rate of Accuracy at least 1 standard deviation unit slower than average Rate of Accuracy of a group of third-grade good readers), at recognizing the experimental words. Of those 16, 8 had DRS listening scores at least three reader levels higher than their reading scores (L > R subgroup); the remaining 8 had DRS listening scores no more than 1 reader level higher than their reading score (L = R subgroup).

All subjects were trained to 100% accuracy on the experimental words (Accuracy training). Then they read silently and answered comprehension questions about a passage formulated from the experimental words. Next, the subjects practiced reading the experimental words until they matched or exceeded the mean Rate of Accuracy of a group of third-grade good readers (at least one year above grade level in silent reading on the DRS). Finally, they read silently and answered comprehension questions about a second passage formulated from the experimantal words.

Training effectively increased single-word recoding speed, but did not differentially affect the reading comprehension of the two subgroups. It also had no significant effect on either subgroup's rate of silent reading (rate of reading in context). The L > R subgroup did not demonstrate significantly better reading comprehension when trained in rapid accurate single-word recoding than when trained only in accurate single-word recoding; and neither did the L = R subgroup. It appears, therefore, that there is more to reading comprehension than rapid single-word recognition and listening comprehension ability.

THE ASSIGNMENT OF SUPRASEGMENTAL FEATURES DURING ORAL READING: ITS RELATIONSHIP TO LITERAL, INFERENTIAL, AND TOTAL RECALL Order No. DA8406929

McGhee, Peggy Wynne, Ph.D. *The University of North Carolina at Chapel Hill*, 1983. 168pp. Supervisors: George D. Allen, William S. Palmer

The purpose of this study was to investigate the relationship between story recall and the assignment of the suprasegemental features of accent, article accentuation, anaphoric pronoun accentuation, intonation, juncture, and hesitation during oral reading. The relationship between the recall of stories read orally and stories read silently was also studied. Fifth-grade students (N = 80) served as subjects. They were selected by stratified random sampling to achieve a male/female, black/white balance. Subjects were randomly assigned to one of three method orders: (1) oral/oral, (2) silent/oral, (3) oral/silent. Each student read two stories according to the method order assigned. Following the oral or silent reading, subjects recalled orally the story just read. The recorded oral readings were analyzed auditorily to determine the placement of the suprasegemental features. The recall responses were analyzed and scored to determine literal, inferential, and total recall scores. Scores for those students in Method Order 1 were statistically analyzed to determine the relationship between literal, inferential, and total recall and the assignment of the suprasegemental features. Recall scores for those subjects assigned to Method Orders 2 and 3 were statistically tested to determine the difference between the recall of orally and silently read passages. The major findings of the study were: (1) A step-down regression analysis indicated a significant relationship between the suprasegmental variable of anaphoric pronoun accentuation and literal recall when the variables of sex, race, economic status, age, mental ability, and memory were controlled. (2) A significant relationship between the suprsegmental features of hesitation and accent and inferential recall was found when the control variables were included. (3) A significant relationship between intonation and total recall was found when the control variables were included. (4) A significant difference was found between oral and silent reading recall. Oral reading recall scores were higher than silent reading recall scores.

THE RELATION BETWEEN SURFACE PROCESSING VARIABLES AND COMPREHENSION PRODUCT MEASURES IN ORAL AND SILENT READING Order No. DA8421136

O'Brien, David Gerard, Ph.D. *University of Georgia*, 1984. 183pp. Director: Bob W. Jerrolds

The purpose of the study was to examine the relation between surface text processing and comprehension outcomes in oral and silent reading. The study was guided by two research questions designed to test four assumptions which underlie a psycholinguistic model of reading. The two questions were: (1) How strongly is text comprehension related to surface processing in oral and silent reading? and (2) What proportion of a reader's understanding of a text is due to the prediction of surface grammatical structure in relation to prior knowledge of the text content?

Thirty seventh-grade average readers were selected, based upon their performance on the SRA Achievement Series (Level F, 1978) and teacher identification as average readers. All subjects were administered the Gates MacGinitie Reading Tests and a text-specific vocabulary measure as pretests and randomly assigned to one of four sequences which contained four text conditions in counterbalanced order. Texts were written by the researcher to fit each of these conditions: (1) familiar intact, (2) familiar disrupted, (3) unfamiliar intact and (4) unfamiliar disrupted. All of the texts were expository texts about games. Disrupted versions were created for each text by embedding frequently occurring miscues into the texts. All subjects read all four texts, two orally and two silently, and completed a free recall and multiple-choice test for each text. Oral reading miscues were audio-taped and coded according to procedures outlined in The Reading Miscue Inventory (Goodman & Burke, 1972).

The data were analyzed using Pearson product-moment correlations, Forward Selection Regression Analysis and T-tests for independent groups. Correlations were applied both within and across text conditions.

The findings indicated that the ability to orally produce grammatically acceptable language was inversely related to gist-level recall for familiar texts and positively related to inferential comprehension for unfamiliar texts. When texts were both unfamiliar and contained surface errors, vocabulary measures were better predictors of comprehension than surface processing. The results indicated that different processes were operating in oral and silent reading across text conditions. The overall conclusion was that a psycholinguistic model of reading cannot adequately account for comprehension processes when text familiarity and difficulty are varied.

A COMPARISON OF ORAL READING ERRORS AND STRATEGIES OF SELECTED GROUPS OF ELEMENTARY SCHOOL READERS Order No. DA8419070

O'Neil, Mary Ann, Ph.D. *University of South Carolina*, 1984. 140pp. Major Professor: Paul Conrad Berg

Purpose. This study examined the influence of grade level, reading ability, and passage difficulty (1) on the errors students made and (2) on the strategies they used when substituting words.

Procedure. Sixty students, fifteen good and poor readers from second and fifth grades, orally read passages of increasing difficulty from the *Analytic Reading Inventory*. Comparisons of errors and strategies were made at two different error-rate intervals. Errors were categorized as substitutions, omissions, insertions, non-responses, and reversals. Substitutions were classified according to the degree of graphic similarity to the stimulus words and syntactic and semantic acceptability within the sentence. A four-way analysis of variance was used for each part of the study.

Findings. (1) Grade level and reading ability influenced the distribution of errors. Low ability second graders performed differently from all other groups. (2) Passage difficulty significantly affected the errors made. (3) Grade level and passage difficulty jointly influenced the strategies used. (4) Reading proficiency did not affect the strategies selected.

Conclusions. (1) Both grade level and reading proficiency were keys to the observed differences in the errors of these readers. A shift in errors occurred as students increased in maturity and proficiency that suggests changes in ways they handled the reading task. (2) Reading behavior changed according to passage difficulty. Material difficulty affected the frequency and distribution of errors; whereas, grade level and passage difficulty affected the relative use of graphic and contextual information. Although second and fifth graders demonstrated the same trend in strategy usage, they differed in the extent to which they relied on various sources of information. On easy material, students made more effective use of context. On difficult material, readers shifted to the graphic strategy and away from syntax and semantics. This shift was more extreme for fifth graders. (3) Difficult material had a detrimental effect on the use of the semantic strategy. (4) It is questionable whether readers of diverse ability differ in the strategies they use to process information.

INFLUENCE OF MAIN IDEA TASK AND TOPIC SENTENCES ON RECALL Order No. DA8405161

Peterson, Sarah E., Ph.D. *Arizona State University*, 1983. 123pp.

This study was designed to investigate the influence of topic sentence availability on recognition and production of main idea statements. In addition, it examined the influence of topic sentence availability and main idea task on immediate comprehension and delayed recall of factual and inferential information from short passages.

Sixth-grade students were asked to read short expository passages, either with or without topic sentences which state the main idea of the paragraphs. Following the passages, they were asked to respond to multiple-choice questions concerning specific facts and

inferences. In addition, they responded either to multiple-choice questions concerning the main ideas or they were asked to produce a statement of the main idea of each paragraph. One week later, they responded to the specific fact and inference questions.

Results indicated that sixth graders were unable to use topic sentences effectively in identifying main ideas. However, topic sentence availability interacted with reading ability and main idea task, such that lack of topic sentences hindered production of main idea statements for low readers.

Topic sentence availability and main idea task did not influence delayed recall, contrary to expectations. However, they interacted with reading ability, immediate comprehension, and delayed recall in a complex way. Finally, results indicated that low readers who were relatively successful at producing main idea statements were able to recall more factual information on the delayed test.

THE VALUE OF SYLLABICATION SKILL IN PREDICTING READING COMPETENCE Order No. DA8415013

SHIPP, JACKIE VON SMITH, PH.D. *New Mexico State University*, 1984. 152pp. Chairman: Professor Leon E. Williamson

There are two theories about the basic processes of reading: that readers primarily utilize letter recognition (LaBerge & Samuels, 1974) or that readers primarily utilize concepts and images (Goodman, 1976). If the syllable and not the letter is the basic unit of recognition for skilled readers, then readers skilled at syllabicating unfamiliar words would be competent readers and readers unskilled at syllabication would also be unskilled readers.

The present study was designed to find if the syllabication skill of the subjects could predict reading and language scores on the Comprehensive Test of Basic Skills (CTBS) and the Test of Adult Basic Education (TABE). Each subject was asked to orally read 40 pseudowords and the number of syllables pronounced was recorded. The pseudowords contained from one to five syllables presented in random order. Subjects were sixth-, seventh-, and eighth-grade students and adults. The number of syllables each subject omitted and/or added to the expected was noted. The sum of the added and omitted syllables was calculated as well as the number of three syllable words each subject failed to correctly syllabicate.

The number of syllables in error for each student was used to develop linear regression models to predict scale scores on the CTBS and TABE in reading and language; and reading from age and syllables in error. The number of subjects in each group who failed to syllabicate 12 or more of the pseudowords of three syllables or more and who also failed to score at or above the 5.0 grade equivalency in reading was calculated.

The *t* scores were significant for the sixth-grade and adult subjects for both reading and language. None of the slopes representing age were significantly different from zero. The correlation between syllables in error and reading for the sixth-grade subjects was 0.58 and 0.53 for language. The correlation between syllables in error and reading was 0.51 and 0.47 for language. Of the subjects scoring at/or below 5.0 grade equivalency in reading, more consistently succeeded in syllabicating 12 or more of the pseudowords of three syllables or more than failed.

READING PROFICIENCY AND MODES OF ACCESSING THE INTERNAL LEXICON Order No. DA8405657

SIMMONS, KATHLEEN, ED.D. *Lehigh University*, 1984. 127pp.

The purpose of this study was to investigate whether skilled and less-skilled readers use the same subprocesses in accessing the Internal Lexicon (IL). The IL is that part of long-term memory which contains information the language user has about the words of his/her language. Current psycholinguistic models suggest that visual word recognition involves the selection of the entry in the IL that best matches the stimulus word and that the procedure for finding this best match involves a number of subprocesses. Three subprocesses were investigated here: prefix stripping, phonological recording and the use of small vocabulary of function words within the IL. Since there is some evidence that the use of these subprocesses is characteristic of skilled readers, the main question underlying the present study was this: Are those processes which research has shown to be characteristic of skilled readers also used by less-skilled readers? It was hypothesized that less-skilled readers make use of alternative subprocesses during word recognition.

Four experiments were performed, each using the same two groups of 17 year old high school juniors, 20 subjects in each group. One group was operationally defined as "skilled" readers, the other group was operationally defined as "less-skilled" readers. The experiments employed the lexical decision task, an individually administered task which requires the subject to indicate, by way of a key press, whether a displayed string of letters is an English word or a nonword. Two performance measures were taken in each experiment (1) reaction time (measured in milliseconds) and (2) percent correct. A measure of simple reaction time was also taken for each subject. Two analyses of variance were performed for each experiment, one reaction time and the other for percent correct. The statistical procedure used was that recommended by Clark (1973), whereby three F-ratios were calculated, F_1, taking means across subjects, F_2, taking means across words, and minimum F', based on F_1 and F_2, which allows subsequent generalization over words and subjects simultaneously.

Hypotheses were tested by testing the interaction of word class with proficiency group. Results showed that in none of the subprocesses investigated was such interaction present, hence there was no indication that the two groups used different subprocesses. . . . (Author's abstract exceeds stipulated maximum length. Discontinued here with permission of author.) UMI

EFFECTS OF USING TEXT STRUCTURE AND SELF-GENERATED QUESTIONS ON COMPREHENSION OF INFORMATION FROM THREE LEVELS OF TEXT STRUCTURE AS MEASURED BY FREE RECALL Order No. DA8412818

THISTLETHWAITE, LINDA LEE, ED.D. *University of Missouri - Columbia*, 1983. 322pp. Supervisor: Dr. Richard Robinson

Lack of adequate comprehension skills is a major problem for students at the college level. Often poor comprehension results when students are not actively involved in the material they are reading. Thus, two methods for involving students in the reading of text were investigated: self-questioning and using text structure.

Research Questions. Answers were sought to the following questions. (1) Do students view self-questioning and using text structure as useful study strategies? (2) What is the relationship between student evaluations of self-questioning and text structure strategies and the independent use of these strategies? (3) Do students using self-questioning or text structure strategies (which have been taught) to study text evidence greater comprehension and recall than those who do not? (4) Do students who use different strategies remember information from different levels of text structure? (5) Do directions to respond rather than simply recall affect the recall of factual information from the text?

Methodology. A 48-hour delayed recall (directions to simply recall or to respond) was used to assess comprehension of a 2000-word passage read by 135 college students enrolled in a reading improvement course. Directions for study of the passage were based on the two strategies taught during the teaching phase of the study. Strategy evaluation was an integral component of the study.

Major Conclusions. Both the self-questioning strategy and the text structure strategy were evaluated positively by the students at the end of the teaching units. However, little transfer to an independent learning situation was evidenced. Those groups directed to use the strategy taught as they studied the post-test selection did not recall a greater number of idea units than did the subjects in the control group. Although the control group recalled the greatest number of idea units, those who used the text structure strategy to study the post-test selection recalled a significantly greater number of idea units from the superordinate level of text structure. Directing students to respond to the selection, thus activating schema, did not result in increased recall of idea units.

A DEVELOPMENTAL INVESTIGATION OF THE USE OF PHONETIC AND SEMANTIC MEMORY CODES IN GOOD AND POOR READERS Order No. DA8416080

WINBURY, NANCY E., PH.D. *The University of Connecticut*, 1984. 99pp.

Earlier studies have shown that good and poor beginning readers differ in their use of phonetic coding in working memory, although the basis for the difference is not understood. While good readers apparently use a phonetic code, some recent research has suggested that poor beginning readers rely on semantic coding to recall words they have heard, but it is unclear whether the same strategy is used when they have read the words, and whether this pattern would continue into later childhood. Few developmental studies have compared the memory performance patterns of good and poor readers.

In the present study we attempted to confirm and extend the finding of two previous memory investigations with second-grade readers: one in which words were read (Mark et al., 1977), another in which words were heard (Byrne & Shea, 1979). Our study examined the relationship of reading ability to memory coding behavior. Second- and fourth-grade good and poor readers were administered a recognition memory test consisting of phonetically- and semantically-confusable words. Children read words silently during one session, while they heard words in another. Experimental words were selected to provide optimal matching for part of speech, frequency rating, readability, and exclusivity of phonetic or semantic similarity.

The results of this study only partially reproduce the findings of previous studies. As expected, poor readers made more recognition errors than good readers. However, the data did not indicate differential effects of age, phonetic or semantic confusability, or mode of presentation in relation to reading ability. All subjects made significantly more semantic errors than phonetic errors. There was suggestion of a negative response bias among second-grade poor readers. To explain why this experiment did not find significant differences between good and poor readers, consideration is given to test reliability, as well as three design features differing from earlier investigations: (1) specific word items selected; (2) age and grade of subjects; and (3) modifications of task structure. Furthermore, it is speculated that this recognition memory task may have actually become a long-term memory activity. Finally, alternative explanations as to why older readers were not affected by phonetic confusability are proposed. Recommendations for future research are discussed.

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